

THE
BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. LXXI.

THURSDAY, AUGUST 25, 1864.

No. 4.

BRONZED SKIN, WITH DISEASE OF SUPRA-RENAL CAPSULES.

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[Communicated for the Boston Medical and Surgical Journal.]

EARLY in February, 1862, I was called in consultation with Dr. B. F. Heywood, of this city, to see Mrs. Currier, of Saundersville—a tall, fleshy, fine-looking lady, aged 51, of light complexion, blue eyes, and dark brown hair. Her disease was scirrhus of the right breast, of several years' growth, of large size, of irregular but unbroken surface, uncomplicated with disease of the lymphatic glands, unattached, and but little painful. I removed it by amputation on the 13th, and she remained under the care of Dr. Heywood, making a rapid and excellent recovery. Soon after, she removed to New Hampshire, and remained there for nearly two years.

For eighteen months her health continued good; but at the expiration of that time (about last September) it began to fail, the first symptoms of disease being occasional paroxysms of pain and distress in the epigastric and right hypochondriac regions, shooting around to the back, and attended with tenderness and soreness, and occasional vomiting. These symptoms increased in severity during the winter, the paroxysms of pain becoming more frequent, more severe, and of longer continuance, and the soreness quite persistent, so as to cause a constant yielding of the body, which in walking was bent forward and to the right side.

In March last (1864) she returned to Massachusetts, and came again under my care. The following is an abstract of my record.

April 4th.—Patient is decidedly anæmic, but not much emaciated; flesh soft and flabby; is very feeble; has a weak, rapid and sometimes almost imperceptible pulse; becomes faint and breathless upon the slightest exertion, and walks in stooping posture on account of pain and soreness in epigastrium. Her position on lying down is upon the right side, with limbs drawn up and head and shoulders depressed. Lying upon the back or left side causes a sensation of "pull-

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ing and tearing" in the right hypochondrium, which is very distressing. Upon examination, I find the cicatrix in the breast and the whole region of previous disease healthy. I cannot find any change in the feeling, appearance or position of organs in the part principally complained of. There is, however, a very perceptible change in her complexion, which consists in a *bronzed discoloration* of the skin, most marked upon the backs of the hands and fingers, in the flexures of all the joints, both great and small, and upon the face. She herself has noticed this, and been very much annoyed by it, for several weeks. She is depressed in spirits, but has usually a good appetite; her bowels are regular, urine nearly normal, and sleep quite natural.

May 20th.—Since last record has had almost daily paroxysms of very acute gastric distress, attended with sensations of obstructed accumulation of gas in the stomach, sometimes lasting for hours, and generally relieved by eructations of flatus, or by vomiting. The bronzing of the skin is much increased, both in extent of surface and in intensity. Local and general symptoms unchanged.

June 17th.—Has failed much in general health and strength, and for a fortnight has been confined constantly to bed, decubitus being still upon the right side, with limbs drawn up, and body bent strongly forward. She thinks food increases the gastric uneasiness and pain, and of late is much inclined to refuse it. I can see no evidence that this opinion is correct. The "bronzing" still deepens in intensity. Her hands look like a mulatto's.

June 30th.—On the day following last record, after an unusually severe paroxysm of distress, violent vomiting came on, relieving entirely the pain, but causing great exhaustion and entire inability to take or retain food. This disability, though the vomiting has been mainly controlled, has continued up to the present date, and this evening, at 6 o'clock, the patient died, of exhaustion and inanition. Her mind was clear to the last. The bronzing of the skin had steadily increased and deepened up to the last moment; and "*bronzing*" describes precisely the discoloration. It was like that of a bronze statue, without lustre.

An autopsy was made, twenty-four hours *post mortem*. Emaciation was by no means great, though the flesh was soft and flabby. The discoloration was somewhat faded, yet very well marked. The section of adipose tissue overlying the sternum and abdominal muscles was over an inch in thickness, and there were very large accumulations of fat in the omentum, in the mesentery, and around the kidneys.

Upon turning back the abdominal walls and removing the stomach and intestines, two large, almost spherical tumors were observed occupying the place of the supra-renal capsules, and joined together across the vertebral column by a thickened, corrugated mass of enlarged and diseased lymphatic glands. The tumor upon the right

side was somewhat larger than that upon the left, being about two and a half inches in diameter, and adherent by a strong and broad attachment to the under surface of the liver. From this point of attachment several broad lines of reddish-white, soft deposit radiated into the substance of the liver for a distance of an inch and a half, resembling soft cancer as sometimes seen infiltrated in that organ. *Externally*, the tumors presented a smooth, uniform, glistening surface; *internally*, upon section, a dense, firm, fibrous texture, making a smooth surface, at first white, but speedily becoming covered with a bright, orange-yellow exudation, which after exposure to the air became a dingy, greenish brown. The diseased lymphatic glands presented a very similar texture, but gave upon section none of the bright yellow fluid.

There was no other disease of importance noticed in the thorax or abdomen. The head was not examined.

CASES READ BEFORE THE MIDDLESEX EAST DISTRICT MEDICAL SOCIETY, MAY 18, 1864.

By R. L. HODGDON, M.D., OF WEST CAMBRIDGE, MASS.

[Communicated for the Boston Medical and Surgical Journal]

CASE I.—*Passage through the Alimentary Canal of an Adult of a portion of clay Pipe-stem, six inches in length.*—T. I., on March 6th swallowed a piece of clay pipe-stem. He sent to ask advice. Supposing that he had broken off a piece of stem while smoking, I ordered an ounce of castor oil. On the 13th, he came himself for advice. He reported that the castor oil had acted freely, but without relief to his distress in the region of the cardiac orifice of the stomach. I then learned that, in doing the trick of *swallowing the sword*, he had used a long clay pipe-stem, and supposed that he had swallowed about 4½ inches in length of it. I saw that this was not a case for castor oil, and advised rest from work, a bland diet, and to trust entirely to nature.

On the 15th, at 7, P.M., I was called to him. He had severe pain in the region of the pyloric orifice of the stomach. Gave him one fourth of a grain of sulphate of morphia, and directed it to be repeated till relief was obtained. At 10, P.M., was called again. Pain very severe. Hands and feet cold. Pulse 50. Injected one fourth of a grain of sulphate of morphia under the skin. In about ten minutes relief was obtained. He passed a quiet night, and had no more pain. On the evening of the 19th, thirteen days after the accident, he found in his dejections a piece of pipe-stem six inches in length. The longest piece on record (so far as I know) which has passed, was three and one half inches.

CASE II.—*A complicated Case of Childbed Fever.*—Mrs. B. was de-

livered of a healthy child, after a natural labor, on March 31st. The first three days after labor were passed comfortably. On April 4th there was a chill, with pain and tenderness over the uterus, followed by rapid pulse and general febrile condition. These symptoms disappeared after two days, when there was a rigor resulting in an attack of pneumonia of the right lung. On the sixth day of the pneumonia there was a chill, followed by the physical signs of bronchitis in the left lung and great increase of fever. The next day the left lung was clear, and the fever had abated. On the eleventh day of the pneumonia there was a severe rigor, and pain and tenderness over the veins of the right leg. The whole limb was swollen largely, following the ordinary course of crural phlebitis, or milk leg.

April 17th.—The swelling began to diminish, the pulse fell to 84 in a minute, and the condition of the patient seemed altogether promising, except a straw-colored appearance of the whole skin. On the next day there was a chill, with pain and tenderness in the calf of the left leg, promising phlebitis in that leg. But this, like the attack of the left lung, aborted, and had entirely disappeared in two days. From this time for three weeks there was a rigor nearly every day, and sometimes twice in twenty-four hours. There was frequent pain and some tenderness in the right hypochondriac and lumbar regions, which were found dull on percussion, and hard to the touch. The diagnosis at this time was, enlargement of the liver and probable disease of the ovary. Although the lower edge of the liver could not be distinctly made out, the lower portion of the tumor was in the region of the ovary, and it was thought too low down for the liver. The peculiar complexion continued; the conjunctivæ, which up to a late time remained clear, became yellow. There was troublesome cough, and at times the respiration was very difficult. The urine was always copious, normal in appearance, and free from albumen. The bowels acted naturally, or with the aid of mild laxatives, till May 8th, when there was diarrhoea with mucous discharges, which continued up to the time of her death, on May 14th. The pulse for the last three weeks varied from 100 to 146 in a minute. The treatment was generally a supporting one—tonics, stimulants, and a good diet of animal broths, and wine whey. The abdomen was painted with tincture of iodine.

Autopsy, May 15th. Present, Drs. Holmes and Field. Heart somewhat enlarged, rather by dilatation than otherwise. The lower lobe of the right lung was found hepatized, and bound by recent adhesions to the pleura costalis. The left lung, spleen, kidneys, uterus and appendages were healthy. The liver was very much enlarged, the right lobe extending from the lower edge of the sixth rib to the crest of the ilium. The left lobe was little, if any enlarged. The liver was not fatty, and presented no evidence of disease. The gall-bladder was cylindrical in form, and measured $4\frac{1}{2}$ inches in length and $1\frac{1}{2}$ inches in diameter. This case is interesting from the

succession of attacks of various diseases, and teaches the importance of caution in the diagnosis of abdominal tumors.

CASE III.—*Diphtheritis or Croup?*—Mrs. P., æt. 30, was seen first on May 11th. She said she had had sore throat for two weeks. For more than a week had not spoken above a whisper. She had consulted a physician once, a week before, and had applied water bandages to the throat. When first seen, the pulse was 120. The respiration rapid and labored, and at times whistling. The tongue slightly furred, the lips and fingers purple, showing marked signs of imperfect oxygenation of the blood. On inspection of the throat, the tonsils showed no peculiar appearance. The vessels of the pharynx were injected and well defined, as on surfaces from which membrane has been removed. No membrane perceived. On auscultation of the chest, there was heard a combination of the sibilant and sonorous râles. Warm fomentations to the throat and chest, and the inhalation of steam were directed. The diet was to be beef-tea and wine whey. The steaming gave temporary relief. She passed a troubled night, having frequent paroxysms of distressed breathing, during which she would open the window and thrust her head out to get air. On the 12th the condition of the patient and the treatment were the same. The night was more troubled than the previous one, and her condition became worse up to the time of her death, at 4, P.M., of the 13th, 55 hours after I first saw her.

Autopsy, 24 hours after death. Considerable portions of the lungs were found emphysematous. The interior of the trachea was completely lined by a firm membrane, easily detached, except at the upper part. The membrane extended into both bronchi, and into all their ramifications, as far as could be traced by the naked eye. Her husband, after the autopsy, told me that his wife had brought to him a piece of membrane half as long as his finger and half an inch wide.

[NOTE.—The specimens of false membrane were exhibited to the Society, which discussed their character at some length. There was a division of opinion. A majority were in favor of croup. Since the meeting, some other members of the family have suffered from a similar disease.—SEC.]

WOUND OF THE NECK. APPARENT RECOVERY. SUDDEN DEATH.

[Communicated for the Boston Medical and Surgical Journal.]

MESSRS. EDITORS,—I send the following rather uncommon case for the JOURNAL.

July 22, 1864, I was called to a rather feeble child, 7 years of age, at West Auburn. She was the daughter of Mr. George Hill, residing at Lewiston Falls, five miles distant. This child was running with a large two-bladed pocket knife in her hand, the smaller

blade being open. It was dull at the point and for a quarter of an inch on the edge. This blade entered her neck, on the right side, about an inch above the clavicle, at the inner side of the sterno-cleido-mastoidæus muscle, passing backwards and upwards to the depth of an inch and a quarter or more. The incision was transverse to the neck, but I could not ascertain whether the edge or back of the blade entered towards the larynx. The bleeding had ceased when I arrived. It had only amounted to an ounce, as near as I could judge. She was having faint spells, and there was no pulse at the right wrist. The external wound, which was five lines in length, gaped, and was closed by a slight stitch and adhesive plaster.

July 23d.—No pulse in right wrist. Breathes short. Complains of pain in right chest. Has had faint spells through the night. A slight pulse felt under the median basilic vein of right arm. Pulse in left wrist 98.

She was moved home to Lewiston Falls, and I did not see her again, but I saw her father a few days afterwards, who said she was very comfortable and doing well. The pulse had returned to the right wrist, and the wound healed without inflammation or swelling.

Aug. 3d.—Twelve days from accident she was at play; had a faint spell, and died in a few moments. No *post-mortem* examination was made.

That the blade entering at that place should have caused instant death would not have been strange; but the apparent recovery and sudden death I can only account for by supposing that the lymphatic, recurrent laryngeal, descendens noni, or pneumogastric nerves, one or more of them, were injured. I think the fainting and breathing point to the pneumogastric nerve and its branches in explanation of the case.

J. H. BLAKE, M.D.

North Auburn, Me.

PROF. FERGUSSON'S LECTURES ON THE PROGRESS OF ANATOMY AND SURGERY DURING THE PRESENT CENTURY.

LECT. IV.—ON LITHOTOMY IN CHILDREN AND ON LITHOTRITY.
MR. PRESIDENT AND GENTLEMEN,—Much of the interest associated with lithotomy has reference to the operation on the adult. It appears to me that the difficulties and dangers of this operation have been estimated more from the results than from the actual process. Hence, as lithotomy is known to be comparatively safe when performed on subjects at any age prior to puberty, it has been deemed equally easy in performance; and a widespread notion prevails that in children it is so readily effected that little study, thought or care has been bestowed upon it.

My own experience has led me to imagine that surgeons have treated this subject too lightly; and, at the risk of being thought to have

entered on ground already thoroughly explored, I shall venture to step freshly upon it, with the conviction that, although I may state nothing which is not already well known to experienced lithotomists, I may do much good to beginners by directing attention to certain points which have heretofore been scarcely, if at all, referred to by clinical teachers or surgical authors.

It has been computed that about a third of those on whom lithotomy has been performed have been under the age of puberty, and the average mortality in such cases is about 1 in 30. Comparing this result with that of the operation on the adult, the measure of success is large indeed; and hence, doubtless, has arisen the common impression that the mechanical process in the young is simple in all respects. I am firmly convinced, however, that a great mistake prevails on this point, and that as much care and skill are required on the part of the surgeon in operating on young subjects as on adults; I should say, even more; for in my personal experience I have often felt more doubtful during the steps of the proceeding upon children than when dealing with the full-grown man.

The history of lithotomy shows clearly that when the operation is satisfactorily accomplished in children, its success is almost certain. Yet we often hear of difficulties and great mishaps in young subjects, and, in particular, we often hear of the operation being abandoned for a time, or of the cutting having been performed when a stone has in reality not been found. If these matters had been more referred to heretofore by authors, operators and teachers, we should, I imagine, have heard more of the difficulties and fatality of lithotomy in young subjects than some people think of; at any rate, a more wholesome idea would have prevailed regarding the subject than, in my opinion, prevails at the present time.

These remarks have been suggested by what I have seen, read, and heard of in the practice of others during the time I have been in the profession, as well as by my personal experience. In my early days of study I was struck and excited by the circumstance that a surgeon of repute had cut into the bladder of a child to extract a stone where none could be felt. The case was considered an example of error in diagnosis. The patient recovered from the wound, but the symptoms of stone continued, and about three months afterwards another surgeon extracted a stone of considerable size from the bladder by the ordinary operation of lithotomy. Another case of a like kind came under my cognizance about the same time, and the impression on my mind was strong that in neither instance had the bladder been reached in the first operation.

In early life I assisted an experienced operator in this proceeding on the adult. Having, as he supposed, cut into the bladder, the stone could not be touched. Here I had an opportunity of examining the wound, and, a suggestion having been made that the bladder had not been opened, the operator, with remarkable dexterity, cut

further in the right direction, opened the viscus, and, with great rapidity, extracted the stone, which he had previously detected by sounding. In this instance I had no doubt whatever that the surgeon had not originally cut deep enough, but had made a space with the forefinger of his left hand, between the pubes and neck of the bladder, which he had for a time mistaken for the bladder.

These and other similar instances which occasionally came to my knowledge, gave me a strong impression that in those cases where surgeons were stated to have cut for stone where one had not been present, they had probably not reached the bladder at all. In the course of time this impression has become much strengthened, and in giving, by this lecture, greater currency than heretofore to the frequent clinical observations which I have made on this subject, I feel assured that my experience and views will not be lost upon those who are earnest in the study of this most interesting operation.

As a beginner, I was taught, or had imbibed the idea, that lithotomy in children was simple in execution; and when I began to operate on the living body this impression was confirmed for a time. I had seen the incisions effected with admirable dexterity by means of a common scalpel, and in my first operation I used a similar instrument. The proceeding seemed simple in the extreme, and I adhered to the same method on subsequent occasions with most satisfactory impressions, until unexpectedly a difficulty arose which produced an effect on my mind that time cannot efface.

After many operations on the adult and on the young subject, I had in a manner forgotten my early knowledge of the position of the bladder in children, and not only was content to make the incisions with a simple scalpel, but had in a measure got careless about some matters of great importance. On the 17th of March, 1849, I had to operate on a boy four years of age at King's College Hospital. I used a scalpel, as I had often done before, and made the ordinary incisions for lateral lithotomy. A grooved staff with a large curve was the director into the bladder. In making the deepest part of the incision I purposely used the cutting instrument as lightly as possible, with a view to open only a part of the membranous portion of the urethra, and notch the prostate and neck of the bladder. These objects being effected, the point of the forefinger of my left hand was, as usual, placed on the staff, and pushed gently towards the bladder. The finger went on, but I was aware that it had not got between the urethra and the staff. With an insinuating movement (much to be appreciated by the lithotomist who, as I do, professedly makes a small incision in this locality), I endeavored and hoped to get its point as usual into the urethra and neck of the bladder. But here I felt conscious that I had failed. I was aware that the finger was getting deeper as regarded the depth of the perinæum, but that I was not materially nearer the bladder. I could feel a considerable space at the point of my finger, and was convinced

that the upper part of the membranous portion of the urethra, as well as the sides above the wound, had given way to the pressure of the point of the finger, and that now, as the latter was getting deeper into the wound, I was only pushing the prostate gland and neck of the bladder inwards and upwards. These parts seemed to recede before the smallest imaginable force, whilst I felt that I could in a manner make any amount of space round the bare part of the staff. I had no difficulty in distinguishing between the surface of this space and that of the mucous membrane of the bladder. Moreover, I knew that I had never crossed that narrow neck which is always felt as the finger passes into the bladder when a limited incision is made. An impression came over me that I was about to fail in getting into the bladder, and I had the idea that unless I could open the urethra just in front of the prostate more freely, I should possibly never reach the stone. Any additional use of the forefinger of the left hand only endangered the further separation of the prostate and neck of the bladder from the pubes, and I was conscious that the only safety lay in cutting a little more freely on the groove of the staff. This I effected with great caution, and then I could appreciate the passage of the finger as usual through the prostate and neck of the bladder. The stone was thereafter easily touched and removed; but when all was finished I was forcibly impressed with the idea that I had nearly failed in the performance of the operation. Here is the stone itself; one of the smallest I have ever removed by lithotomy. An onlooker might not have been able to perceive the cause of this emergency, but I was myself conscious that I had not reached the bladder, even at a time when the finger seemed deep in the perinæum. Happily, the patient recovered, though slowly, in consequence of the lacerated character of the wound and the formation of an abscess in the left testicle.

Until this date I confess I had never fully appreciated this danger and difficulty in lithotomy in young subjects. I had read of the slipping of the gorget in this operation, and become acquainted with the fact that futile incisions had often been made, and with the supposed mistake of the surgeon in cutting when no stone was present; but now a new idea flashed on my mind, and from that time I have never lost sight of it. I have never performed lithotomy on children in public without referring to it. I have observed, since that time, that the subject has been alluded to by certain surgical authors, but I am not aware that it had ever been specially noticed before.

From all my experience I feel justified in stating my conviction that most of the cases heretofore related as instances where the incisions for lithotomy have been made and a stone has not been present, have been examples where the surgeon has failed to reach the bladder from the cause just narrated. Since I have been impressed with this view I have known of cases where, death having followed the incisions, the stone has been found in the bladder at a post-mor-

tem inspection; and I have also heard of others where the stone has been successfully extracted at a second operation, after the first wound has been allowed to heal.

The mishap is much more likely to occur than most surgeons imagine, and my opinion is founded upon the following grounds:—The size of the wound is necessarily limited, so that the forefinger of the left hand in a manner fills it. The perinaeum is much deeper in proportion in the child than in the adult, and, in addition, all the material is loose, lax, and loaded with fat. The circumstance that the bladder is more abdominal than pelvic in early life has been greatly overlooked. The slender tissue of the membranous portion of the urethra, the narrowness of the tube (both contributing to the facility with which the circumference may be torn through), and the small size of the prostate (rendering its discrimination difficult), all constitute peculiarities which are not conspicuous in the adult. In the latter there are room, development, bulk, mass, and a final wall of prostate and bladder, which may be all said to be deficient in the child.

From these data I have long since come to the conclusion, and have long taught in my lectures, that lithotomy in children, whilst comparatively free from danger as regards the final result, is by no means so free from difficulty or the risk of failure. The safety of result has been mistaken for simplicity of execution; but I hope that what I have now stated may be a warning to the young lithotomist. It may naturally be asked how the danger referred to may be avoided. My answer is, that more care than is usually given should be devoted to the operation, and that as the surgeon cuts into the membranous portion of the urethra and neck of the bladder he should never push the point of his forefinger onward unless he feels certain that he has it between the staff and the wound.

To show that I do not now speak without a fair share of experience, I take the liberty of stating that of one hundred and fifty-nine patients on whom I have performed lithotomy, fifty have been under the age of puberty—that is, under fifteen. Experience, instead of diminishing my anxiety on such occasions, has rather increased it; for as numbers have enlarged, I have been more and more impressed with the views above given. Of the fifty cases I have lost two—one was the third child I operated on, the other was the forty-eighth; so that of the whole number, I cut consecutively forty-four without losing a case, or forty-seven losing only one. Of the two lost, one died on the twelfth day after, from unhealthy inflammation; the other on the second day, from hæmorrhage and shock, the bleeding being probably the principal cause. Six of these were done in private practice, the rest in public—one (a fatal case) in the Royal Infirmary of Edinburgh, the others (forty-three in number) in King's College Hospital. I am not aware of such a list having been published before; and to myself, as I believe to the profession generally, it would be

interesting to hear the results of the practice of those who have had greater experience than I pretend to in lithotomy in children.

The operation of lithotritry is now so familiarly known and so established in ordinary surgical practice, that it seems almost rash to venture any remarks upon it, or to affect the smallest originality. It is more than a quarter of a century since I myself ventured to write on a ground which was in a manner new to British surgeons. The instrument now in common use was then but little known, for the bent double-bladed crusher of Weiss had not then displaced the three-pronged lithontriptic apparatus of Civiale. Like most others in those days, I was not slow to recognize the superiority of the double-bladed curved instrument—devised, I think, by Mr. Hodgson, and made more perfect soon after by Weiss—whether the crushing force was applied by the screw, or by the hammer force which was then introduced and practised by Heurteloup and strongly advocated by Costello. Besides the common interest in this subject, a little modification in the crushing force—the rack and pinion, which I then proposed—engaged my attention further, and was probably one reason why in early years I had acquired an amount of experience in cases of stone in the bladder which does not fall to the lot of the generality of young surgeons in this country. Having now treated between 250 and 300 cases of the kind by lithotomy or lithotritry, I assume that my personal experience has been considerable, and I therefore venture to offer some remarks on the subject to which this lecture is in part devoted, which may possibly serve to advance and enhance one of the greatest achievements of modern surgery.

In the early history of modern lithotritry the grand object was to file, rasp, saw, or crack a stone into sand or fragments sufficiently small to pass with the ordinary stream of urine through the urethra; and even to the present day such may be said to be the doctrine of surgery. To such extent has this doctrine been carried, that caution has been given against searching the bladder in certain directions for fragments, or attempting their extraction by any other means than by coaxing them into a tube, scoop, or catheter, specially constructed with large eyes for the purpose.

Paralysis of the bladder has been deemed one of the strongest objections to lithotritry, as it has been thought useless to break a stone where there was no power to expel the fragments. My impression is that these views have been held by the majority of surgeons in this country. I confess to have imbibed and acted on them myself; and it is because I think I know better now that I venture to offer the present observations on a subject which many consider to have lost its novelty.

In a large majority of my own early cases, I was content with crushing the stone, and waiting for the gradual and spontaneous egress of the fragments. I did make use of the so-called scoops, the large-eyed catheters (double and single), injections and currents of water, sin-

gle or continuous; but with results so unsatisfactory that I had no confidence in any way of getting rid of fragments except by forcible disintegration and chance. In some cases nature and chance did all that was expected; the fragments came in good time, and the case was complete. In others, however, there seemed no end to the disease, which, in reality, appeared rather increased by the comminution of the stone. In one instance, during the early days of anaesthesia, the patient bore lithotrity as if nothing had been done. Whatever roughness there might have been in the operation, he was, under the influence of ether, unconscious, and he bore his condition afterwards most manfully. His malady, notwithstanding, seemed rather to increase than diminish; and his sufferings at last from the fragments were such that he requested to be relieved by lithotomy. I myself, wearied with the repeated unsatisfactory results, willingly complied. Lithotomy was performed. I extracted ten small stones by one swoop of the forceps. The operation did not last a minute; and I do not think that I ever performed lithotomy with less injury to the structures implicated or with more temporary satisfaction to myself. Yet the patient, a fine healthy man in all other respects, died within a few days.

Although unfortunately experienced in the mysterious way in which patients die after both lithotrity and lithotomy, I was greatly struck by the rapid result in this instance. He had borne with comparative impunity more than the usual amount of irritation and suffering after lithotrity; but he sank under lithotomy, like one with the powers of life already exhausted to the last degree.

This case made a strong impression upon me. I wondered how a man could bear so much from lithotrity and so little comparatively from lithotomy. As he stood the use of the lithotritic apparatus so well, I asked myself how it might have been if I could have removed all the fragments which would not come away, and which by their irritation kept upon him all the sad sufferings from stone.

Some years afterwards my attention was further attracted to this subject. I felt dissatisfied with my experience of extracting stone from the female bladder, either by cutting or dilating. In July, 1854, a case of stone in the female came under my notice. The patient was three years old, and wishing to avoid dilatation, I used a lithotrite made for the purpose by Weiss, smaller than any which he had yet constructed. With this, and a scoop of the same size, I cleared the bladder in two operations under the influence of chloroform, and the case was rapid and perfect in all respects. I crushed first, and with the scoop extracted the fragments. With this I either extracted a fragment at once and entire, or jammed it so between the blades that I could withdraw the instrument (the blades containing the fragments) readily without serious damage to the urethra.

I was so much pleased with this practice and the instruments, that

I resolved to try further, on the first opportunity, in the adult. In December of the same year, a gentleman with a moderate-sized stone came under my notice. On the 6th, the stone was crushed under chloroform. On the 13th, several fragments having passed in the interval, crushing those remaining was resorted to. On the 19th a few had passed, but not all that were expected, and in consequence the small scoop was introduced, and the bladder was, after several manipulations, seemingly cleared. The next day the patient was so well that he left town to go a considerable journey. In May, 1858, nearly four years after, this patient came to town with some irritation like his former early symptoms. I examined, and detected stone. Having become in the interval, from further experience, more familiar with the use of the little scoop, I applied it here, and, without much trouble to myself or distress to the patient, extracted three small calculi, each about the size of a flattened pea. In a few days all irritation had ceased, and thus a cure was effected without even crushing, but simply by extracting. In July, 1859, I removed from the same patient an entire stone about half an inch in diameter, with the same instrument, and from that time he has remained free from disease.

Since the above dates I have almost invariably used these instruments in the process of lithotritry in the male. I have generally, as a first step, introduced a lithotrite of considerable size, equal to a No. 10 or 11 bougie, and broken the stone into various fragments. Next, I have taken the smaller lithotrite, above referred to, attacked these fragments, and then have used the small scoop with the object of removing several fragments, so that the patient might have satisfactory evidence that the stone had been crushed. In a few days after the small crusher and scoop have again been used—particularly the scoop, wherewith the fragments which have been found sufficiently small have been extracted singly, or two or three at a time. Thus, instead of waiting for the spontaneous escape of the fragments, a process usually both uncertain and tardy, the stone has been got rid of by direct and precise surgical interference.

If this practice be judiciously carried out, it will, under ordinary circumstances, prove an immense advantage; and in many instances a stone may be removed with a rapidity little short of the time needful for lithotomy, with the advantage that the patient need not be confined to his bed for a single day.

My chief object in this portion of my lecture is to draw attention to this subject. It is comparatively but little known; and, moreover, a very general impression prevails that it is incorrect to extract fragments. The various instruments and mechanical devices which have been from time to time recommended or used for this purpose, or to facilitate their escape, have generally proved of so little service that they have been in a manner overlooked or laid aside by the practical lithotritist. It has even been taught that no attempt should be made

to extract fragments; and, as I have already stated, so strong is the feeling in this respect, when stone in the bladder is conjoined with paralysis of that organ, that the operation of lithotrity is considered highly objectionable, if not impracticable, because there is no likelihood of the fragments passing away, excepting through a large-eyed catheter or scoop made specially for the case.

With the instruments which it is my object to recommend, the process of lithotrity, and I believe the distress of the patient both bodily and mental, may be considerably abbreviated; and instead of paralysis being objectionable, it is perhaps the condition most favorable to the operation, as it generally happens that with paralysis there is a callousness of the mucous membrane of the bladder which permits a freer use of the blades than under ordinary conditions.

In early days a large instrument was thought essential for the due performance of lithotrity. The risk of bending or breaking was deemed considerable and serious, and on these grounds the largest instrument which the urethra would admit was selected for use. If a catheter or so-called scoop was used afterwards, its magnitude was thought of equal importance; and to give every advantage in this respect, it was recommended that the urethra should be dilated, and, if needful, the orifice in the glans enlarged by incision, prior to the use of lithotritic instruments.

As to the advantage of a larger urethra there can be no doubt; but I believe that large instruments are by no means so essential. Indeed I feel assured that comparatively small-sized ones are an advantage, and in certain stages of the treatment I believe them of great value.

The modern lithotrite, particularly of the best English makers, is a very superior instrument to those in former use; and less force is required to break an ordinary stone than was imagined. We seldom hear of an instrument of the kind either bending or breaking; and in the course of time I have come to the conclusion that one of small diameter permits of more ready manipulation than where the size is such as to fill, and be in a manner grasped by, the urethra. Hence, then, I have for many years employed lithotrites of smaller diameter than those in common use. An objection to small sizes has been made, because when the bladder is irritated to spasm the water escapes, whereas it would not if the urethra were filled (plugged) by a large instrument; but the escape can readily be prevented, if desirable, by grasping with the fingers and thumb. Even in regard to the quantity of water required in the bladder during the operation, I believe there is no such necessity for a large amount as some have imagined. When the organ is distended with eight, ten, or twelve ounces, the stone is usually more difficult to be caught than when the quantity is smaller. The slightest touch causes it to move where there is a large amount of fluid, and fragments are certainly much more difficult to be detected and seized. No doubt it is unwise, even

dangerous, to open the blades of a lithotrite freely in an empty bladder, or one with very little water in it; but I have long been convinced that there is no need for the presence of so much fluid as some have thought.

The chief objections that I myself have found to very small-sized lithotrites or scoops are, the comparative difficulty of passing them into the bladder, and, especially, the comparative difficulty of sounding for fragments. In the finer manipulations of the sort it is hard to say whether the sense of touch or of hearing is of the greatest value. I am almost inclined to give the ear the preference; but even with this it is of the greatest consequence that the utmost facility of movement should be permitted, and hence I am averse to the use of the sounding-board, as recommended by Mr. Brooke and others, as also to the use of instruments which fill up the urethra to such an extent as to prevent the free movement of the point of the instrument within the bladder.

I was so early impressed with the necessity of having a narrow shank for a sound, so that every facility should be given to movement, that I had Heurteloup's sound, as it is called, modified accordingly. The shank was made of smaller diameter by several sizes than the curved end, and thus the latter was a sort of lob, which could be turned about readily in all directions, while its comparatively large size gave more certainty to both hand and ear. An instrument of this kind has been depicted in the later editions of my work on Surgery, and is now in considerable general use. A sound of this sort is of far greater value than one with a thick stem or with a slender stem and equally slender point; and, in accordance with my views on these matters, Mr. Matthews has lately constructed, on his own device, a lithotrite with a narrow stem and lob point, which, in my opinion, goes far to facilitate the effective use of the lithotrite in ordinary cases of stone. The force is applied by the rack and pinion, in accordance with my own views on this subject, but of course the same shape will answer for the various ways in which the screw force has been so admirably applied in modern times by Messrs. Weiss and Mr. Coxeter.

But these instruments are those to which I am most desirous of drawing attention. The small size must appear remarkable even to those familiar with the lithotrites and scoops hitherto known. I am not aware that any so small have ever before been made.

I have instruments of the kind in my possession varying in size from No. 3 to No. 6 bougie or catheter sizes, and with them I am in the habit, as I imagine, of diminishing the period usually devoted to the completion of lithotomy.

Generally when a stone is crushed the fragments are left to chance. So-called scoops and big-sized catheters have been introduced, and by the natural stream, or the force induced by injections, the fragments have been extracted, and have occasionally appeared in quick-

er time than if left solely to chance; but in the majority of instances the surgeon and patient have waited for the chance escape of the fragments without instrumental aid.

At this date there is ample experience to show that after a stone is crushed by one or repeated sittings, the fragments do come away, and a perfect cure is the result. But in many instances the last fragment is tardily discharged, and many weeks or many months elapse ere the cure is complete.

The chief object I have in view in these remarks is to establish this practice. Supposing a stone crushed and its fragments comminuted, my proposal is, that these should be removed at the same time, or as soon thereafter as may be. The lithotrites generally in use are so large that they can be withdrawn from the bladder only when shut. If a fragment rests between the blades, it must be comminuted before these can be closed. The same remarks are applicable to ordinary scoops. Comminution must be so effectual that the blades may be closed, or nearly so, and all that can be brought away is the small bruised portion held in the hollow between the blades.

With a small lithotrite and scoop, such as I am in the habit of using, a fragment of considerable size may remain betwixt the blades, and yet the united size or diameter may readily pass or be drawn along the urethra.

In the last sixty cases I have adopted this practice generally, and, with few exceptions, have had every reason to be satisfied. Occasionally, when over-anxious for a rapid cure, I have extracted fragments rather too large to come readily along the urethra, particularly in the prostatic or membranous portion, or at the triangular ligament. In some, when the urethra nearest the neck of the bladder has been rather roughly used, there has been considerable irritation; in others, even under such circumstances, there has been no irritation whatever; and in many instances I have been able to effect in one or two operations within ten days what, according to custom, would take weeks, or possibly months. I have done, in fact, by a precise surgical manipulation, that which according to ordinary rule is left entirely to chance. Experience has taught me that it is almost hopeless to trust to chance in all such cases; that in many instances the fragments may be weeks, or months, in coming away, even with attempts to coax them through catheters with large eyes and other instruments devised for the purpose. Here are the fragments of stone crushed in a man whose bladder acted regularly, yet only a few of these passed spontaneously; all the rest were removed by the scoop in question in three or four operations. From first to last there was not a single bad or even troublesome symptom. The patient was detained scarcely an hour in bed beyond his regular period of rest. I never saw one suffer less distress; yet, before he came under my notice, he had been strongly urged by an eminent surgeon to submit to lithotomy.

It is considered an extreme misfortune for a patient to have stone in the bladder and paralysis of that organ at the same time; and it has been well nigh a rule in surgery that lithotritry is scarcely eligible in such cases, on the ground that the fragments are not likely to be expelled or carried off by the stream of urine through the urethra or a catheter. Here are the fragments of a large stone from the bladder of a patient who could not pass a drop of water without the aid of a catheter. All of them, with a few minor exceptions, were extracted with a small scoop.

The mechanical development, if I may so call it, of stone shows the uncertainty of its spontaneous expulsion from the bladder. Most calculi have each a nucleus far smaller than the diameter of the urethra, but how few such nuclei pass? At all events, stones larger than the diameter of the urethra—nearly all the instances in which lithotomy and lithotritry have been performed—are examples where small round bodies (the nuclei) have not passed away spontaneously.

Now, I claim for surgery the power of taking away such bodies. I do not profess originality in this respect, for we all know what was done by Sir Astley Cooper in this way; but the instrument he used in removing small calculi—gravel, we might say—is of inferior mechanical powers to the modern lithotrite. It would be of little use in dealing with fragments in lithotritry; nor would the ordinary lithotrite or scoop be of much use in what I now speak about.

The small instruments which I now show are essential to the practice which I advocate, and with these I maintain (as I have amply tested in numerous cases) that lithotritry can be abbreviated and brought to a certainty such as has not been claimed for it hitherto.—*London Lancet.*

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, AUGUST 25, 1864.

RECENT PROGRESS IN SURGERY.—The occasional summing up, by eminent members of the medical profession, of the principal improvements and discoveries in the special departments of medical science to which they have devoted themselves—the judicial survey of the whole mass of assumed and positively valuable additions to our stock of professional knowledge or of means for the relief of suffering humanity—must always be of immense advantage and interest to physicians. The quantity of genuine wheat hidden in the chaff which burdens our weekly journals is so small, that we cannot be too grateful to those who are willing to sift it out for us and give us the pure grain for so much that is more filling than satisfying. The small amount of time which active practitioners have for professional reading makes such résumés all the more valuable to them; and they thus serve the purpose of making positively prominent those things which are worth

preserving, while the form in which they are presented makes them eagerly sought by those who, under other circumstances, would hardly come to the knowledge of them. It is with this feeling that we have given so much space in our pages to a reproduction of Prof. Ferguson's instructive lectures, and it is with a similar feeling that we have read the admirable address of Dr. J. Mason Warren, delivered before the Massachusetts Medical Society, at its last annual meeting, which bears the title which stands at the head of this article.

This address, when originally delivered, had not a fair chance to be heard. The wretched acoustic properties of the hall in which it was delivered limited the real audience to the fortunate few who happened to be in the immediate vicinity of the speaker. To the larger number of those present, therefore, the published discourse must be as new as if they had not heard a word of it before.

The address we find to be a condensed review of the author's experience as a surgeon during the past thirty years. Paying an introductory tribute to the principal addresses of a philosophical character, so to speak, which have from time to time reflected the prevailing sentiment of the profession here on the theory and practice of medicine, the author comes to that department which has especially engaged his attention, and shows that in the theory and practice of surgery, also, there has been introduced a more enlightened spirit and a more rational practice. His own experience has shown him, within the sphere of his practice in this city, the most decided change in the immediate results of some of the capital operations of surgery, leading to a necessary change of treatment, and due, as he shows, entirely to its impaired hygienic condition, from the rapid increase and consequent crowding of the population. Such facts are too often overlooked, and too often we see operations unsuccessful and valuable lives sacrificed in town, from the simple failure or unwillingness to recognize the immense importance of this fact. Encouraged by the statistics of successful operators in other places, how often, for instance, has the operation of ovariectomy been done unsuccessfully in our large cities of late years, when in the purer air of the country it would undoubtedly in many cases have been attended with a happy result! We cannot recal a single instance of a fortunate termination of this operation in Boston, while the cases of Dr. Kimball, which we have of late been publishing, show an almost invariably successful result; a result, without at all detracting from the professional skill of the operator, undoubtedly to be ascribed in a very considerable degree to the healthfulness of the locality in which the operations were done. The same unwillingness to turn aside from the established routine. Dr. Warren shows, operated in Paris to keep surgery there behind that of England and America for years.

Passing from a short notice of anesthetics, Dr. Warren takes up the special operations of surgery. Lithotomy has grown up under his immediate observation, the operation being a great novelty just at the time of his first visit to Europe. The occasions for its use have greatly multiplied here of late years. Dr. Warren shows that during forty years of the experience of his distinguished father up to 1844, all the operations for stone in this city had been done by him, and they only numbered twenty-five; and of these only three were natives of Boston or its neighborhood. Whereas the author has himself "operated

on rather more than thirty cases, and the operation has been frequently done by other surgeons. Most of these cases were from a distance, and but four or five belonged to Boston. Two thirds of these were operated on by lithotripsy, and, as well as those by lithotomy, have proved successful."

We cannot follow Dr. Warren through his interesting remarks on fractures and dislocations, but would call special attention to his observations on *dislocation of the shoulder, with fracture of the neck of the humerus, and dislocation with supposed fracture of the acetabulum*, as being of great interest and importance.

From the chapter on amputations we copy the following statistics of these operations in the Massachusetts General Hospital:—

<i>Total of Cases from 1822 to 1860.</i>					
Thigh,	174	recovered, 136	died, 38	per cent. of deaths,	22.8
Leg,	144	" 110	" 34	" " " "	23.6
In lower extremity,	318	" 246	" 72	" " " "	22.6
Arm	31	" 27	" 4	" " " "	12.9
Fore-arm	31	" 28	" 3	" " " "	9.7
In upper extremity,	62	" 55	" 7	" " " "	11.3
Total of amputations (except of hip and shoulder), 380; recovered, 301; died, 79; per cent. of deaths, 20.8.					

Amputations at Hip- and Shoulder-Joints from 1850 to 1860.

Hip,	2	recovered, 1	died, 1	Per cent. of deaths,	50.0
Shoulder,	16	" 10	" 6	" " " "	37.5

In the operations for fissure of the palate, as our readers will have noticed in Prof. Fergusson's lectures, Dr. Warren has introduced some very important innovations which have contributed largely to their success. These operations, he says, he has now done about ninety times, and, with the exception of half a dozen cases, has "never failed to get more or less union of the soft parts: and it is a remarkable fact, that, in the most extreme cases of very wide fissure, the operation has been as successful in improving the voice as in cases of the simplest character confined to the soft palate only. The most essential point is, I am sure, to establish the velum throughout the greatest possible extent; and just in proportion as this end is attained will be the degree of perfection with which articulation will be finally performed."

Dr. Warren goes on to take up the more important operations in surgery in turn, illustrating each by practical remarks based on his own experience. Of the comparatively simple operation of removal of the tonsils, but one attended with great benefit to the patient, he says:—

"By the simple guillotine instrument—introduced by Dr. J. C. Warren—the operation may be performed without danger, and hardly compels the patient to abstain from a single meal. I have performed this operation from five hundred to a thousand times, and have never lost a single patient from it, nor had a single case of dangerous hæmorrhage. In two instances where I have seen it done by the modification of Fahnstock's instrument—which requires the tonsil to be fixed with a fork, and the section made by drawing the knife instead of pushing it—I have known troublesome bleeding to occur."

Dr. Warren's address concludes with a graceful and well-deserved tribute to the Surgeon-General of the State, and those gentlemen of the profession here who in an official or private capacity have con-

tributed so much to the professional care of our soldiers or to the general welfare of the whole army; and an obituary notice of some of the most marked among our professional brethren whose career has closed during the past year. A few quaint selections from the Hindoo Shastras on the duties of physicians bring it to a close. As a whole, it is a most excellent practical discourse, and will be regarded hereafter as a most valuable historic record of the precise condition of surgical practice in this city at the present day, and a contribution of permanent worth to the archives of our State Medical Society.

RESPONSIBILITY OF PHYSICIANS IN CONFIDENTIAL CASES.—In our article under this caption, published in No. 22 of the last volume of this JOURNAL, in one of the cases introduced for the purpose of illustrating the subject, we learn that it is claimed great injustice and injury was done to one of the parties alluded to, and undeserved censure was conveyed in the language employed. As we have no desire to assume a judicial prerogative in the case, but to act with perfect fairness to all concerned, we willingly admit the following statement:—

MESSRS. EDITORS.—The "Correction" in your JOURNAL of the 11th inst., does not cover the whole ground of complaint. The main fact with regard to the withdrawing of the slander suit was there correctly stated; but in the declaration of the plaintiff in that suit no mention was made of the anonymous communications which the plaintiff still claims were written and circulated by the physician who was the defendant. And inasmuch as he neither admits nor denies the authorship of the alleged anonymous correspondence, and refuses to give a satisfactory explanation as to the motive which prompted his alleged conduct, the injured party claims that he was justified in laying the particulars of his case before the body of physicians of which that physician was a member, or to address any association competent to act upon the unprofessional or dishonorable conduct of its members.

Your editorial comments, therefore, upon the course pursued by the gentleman claiming to be injured in this case are evidently undeserved; and it is hoped by admitting this statement to your JOURNAL you will do what you can to compensate him for the pain and annoyance they have caused him.

A FRIEND OF TRUTH AND JUSTICE.

VITAL STATISTICS OF BOSTON.
FOR THE WEEK ENDING SATURDAY, AUGUST 20th, 1864.
DEATHS.

	<i>Males.</i>	<i>Females.</i>	<i>Total.</i>
Deaths during the week	63	58	121
Ave. mortality of corresponding weeks for ten years, 1853—1863,	51.6	51.6	103.2
Average corrected to increased population	00	00	113.5
Death of persons above 90	0	0	0

TO CORRESPONDENTS.—Papers have been received from Drs. P. F. Doggett and J. M. Sharkey, S. K., Chiron, from Massachusetts Surgeon-General's office, and from University Hospital, New Orleans.

DEATHS IN BOSTON for the week ending Saturday noon, Aug. 20th, 121. Males, 63—Females, 58.—Abscess, 1—accident, 5—congestion of the brain, 2—disease of the brain, 5—bronchitis, 1—burns, 1—cholera infantum, 20—cholera morbus, 1—consumption, 11—convulsions, 6—diarrhea, 8—dropsy, 1—dropsy of the brain, 4—drowned, 1—dysentery, 8—epilepsy, 2—exhaustion, 2—scarlet fever, 2—typhoid fever, 3—gastritis, 1—hemorrhage, 1—disease of the heart, 1—hydrocele of the neck, 1—infantile disease, 3—disease of the kidneys, 2—congestion of the lungs, 1—disease of the lungs, 1—inflammation of the lungs, 4—marasmus, 3—old age, 2—paralysis, 1—premature birth, 1—puerperal disease, 1—smallpox, 1—teething, 1—thrush, 1—unknown, 9—whooping cough, 1—erosion of the womb, 1.

Under 5 years of age, 69—between 5 and 20 years, 8—between 20 and 40 years, 24—between 40 and 60 years, 11—above 60 years, 9. Born in the United States, 96—Ireland, 19—other places, 6.